What is claimed is:

1. An optical disk recording method for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk,

wherein tracking control is performed in such a way that a center of an optical axis of the light beam is offset, by a predetermined amount, from a center line of the track toward the outer circumference of the optical disk.

2. An optical disk recording method for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of an optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk,

wherein tracking control is performed using a tracking error signal detected at given time segments within an ON period of a recording pulse signal after formation of a pit is initiated and a reflection of the light beam from the optical disk passes a peak level and within an OFF period of the recording pulse signal.

3. An optical disk recording method as recited in claim 2 wherein a length of the given portion within the ON period of a recording pulse signal is variable depending on recording conditions.

4. An optical disk recording device for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk, said optical disk recording device comprising:

a tracking signal generating section that sequentially outputs a detected tracking error signal during a particular period from a given time point after formation of a pit is initiated in response to turning-on of a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is turned on next, and that, during a period other than said particular period, either holds a level of the tracking error signal detected immediately before said particular period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal; and

a control section that performs tracking control using the tracking signal provided by said tracking signal generating section.

5. An optical disk recording device as recited in claim 4 which further comprises a section that modifies a start point of a time segment for detecting the tracking error signal.

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6. An optical disk recording device for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk, said optical disk recording device comprising:

a tracking signal generating section that sequentially outputs a detected tracking error signal during a particular period when a recording pulse signal is in an OFF state or no pit is being formed, and that, during a period other than said particular period, either holds a level of the tracking error signal detected immediately before said particular period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal;

an offset imparting section that imparts an offset

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to the tracking signal;

a storage section that stores information indicative of optimum offset values corresponding to various possible recording conditions; and

a control section that reads out one of the optimum offset values corresponding to current recording conditions and setting the offset, to be imparted by said offset imparting section, to the read-out offset value, and performs tracking control using the tracking signal having the offset imparted thereto.

7. An optical disk recording device for recording information on an optical disk, based on a mark-length recording scheme, by forming pits sequentially from an inner circumference to an outer circumference of the optical disk via a light beam irradiated onto a track formed as a groove or land on a recording surface of the optical disk, said optical disk recording device comprising:

a tracking signal generating section that sequentially outputs a tracking error detection signal during a particular period from a given time point after formation of a pit is initiated in response to turning-on of a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is turned on next, and that, during a period other than said particular period, either holds a level of the tracking er-

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ror signal detected immediately before said particular period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal;

an offset imparting section that imparts an offset to the tracking signal;

a storage section that stores information indicative of optimum offset values corresponding to various possible recording conditions; and

a control section that reads out one of the optimum offset values corresponding to current recording conditions and setting the offset, to be imparted by said offset imparting section, to the read-out offset value, and performs tracking control using the tracking signal having the offset imparted thereto.

8. An optical disk recording device as recited in claim 7 which further comprises a section that modifies a start point of a time segment for detecting the tracking error signal.

9. A servo-balance adjusting method for use with an optical disk recording device for recording information by irradiating a laser light beam onto an optical disk having a track wobbling in predetermined cycles, said servo-balance adjusting method comprising the steps of:

detecting a wobble component, corresponding to a wobble of the track, contained in reflected light reception signals generated by receiving a reflection of the laser light beam from the optical disk during recording on the optical disk; and

adjusting level balance between the reflected light reception signals for use in calculation of a servo error in such a way that the wobble component detected by said step of detecting presents a substantially minimum level.

10. An optical disk recording device comprising:

an optical head that irradiates a recording laser light beam onto an optical disk for recording of information thereon and receives a reflection of the laser light beam from the optical disk to provide reflected light reception signals;

a wobble component detecting section that detects a wobble component, corresponding to a wobble of a track on the optical disk, contained in the reflected light reception signals during the recording on the optical disk;

a servo error detecting section that detects a servo error by performing arithmetic operations between the

reflected light reception signals;

a servo section that corrects the servo error by driving a servo actuator on the basis of the servo error detected by said servo error detecting section;

an adjusting section that adjusts level balance between the reflected light reception signals to be used in the arithmetic operations performed by said servo error detecting section; and

a control section that automatically adjusts the level balance between the reflected light reception signals by controlling said adjusting section in such a way that the wobble component detected by said wobble component detecting section presents a substantially minimum level.

11. An optical disk recording device comprising:

an optical head that irradiates a recording laser light beam onto an optical disk for recording of information thereon and receives a reflection of the laser light beam from the optical disk to provide reflected light reception signals;

a wobble component detecting section that detects a wobble component, corresponding to a wobble of a track on the optical disk, contained in the reflected light reception signals during the recording on the optical disk;

a display that displays a level of the wobble component detected by said wobble component detecting section;

a servo error detecting section that detects a servo error by performing arithmetic operations between the reflected light reception signals;

a servo section that corrects the servo error by driving a servo actuator on the basis of the servo error detected by said servo error detecting section;

an adjusting section that adjusts level balance between the reflected light reception signals to be used in the arithmetic operations performed by said servo error detecting section; and

a level balance adjusting operator that is operable to manually adjust the level balance between the reflected light reception signals by controlling said adjusting section in such a way that the wobble component detected by said wobble component detecting section presents a substantially minimum level.

12. A servo balance detecting device comprising:

an input terminal section that receives reflected light reception signals corresponding to a reflection of a recording laser light beam irradiated by an optical disk recording device onto an optical disk;

a wobble component detecting section that detects a wobble component, corresponding to a wobble of a track on the optical disk, contained in the reflected light reception signals received via said input terminal section; and

a display that displays a level of the wobble com-

ponent detected by said wobble component detecting section.

Add D1

Add D2